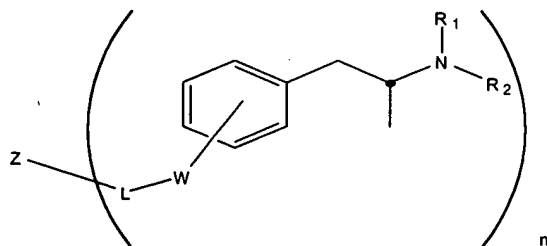


Claim Amendments

Please amend the claims as follows:

1. (currently amended) A compound of the formula:



wherein:

$R^1$  is H, lower alkyl, a protecting group,

$R^2$  is H, lower alkyl, a protecting group,

L is  $-(CH_2)_t-X-(CH_2)_v-Y-$  wherein X is C(O) or  $SO_2$ , Y is a bond, S or  $-NR^3$  wherein  $R^3$  is H or lower alkyl, W is O, S, or NH, and t is an integer from 1 to 6 and v is an integer from 0 to 6 a bond or a linking group,

~~W is a heteroatom,~~

Z is H, a protecting group, a poly(amino acid), a non-poly(amino acid) label moiety, a non-poly(amino acid) immunogenic carrier, or a functional group excluding thiol,

n is 1 when Z is other than a poly(amino acid) or, when Z is a poly(amino acid), n is an integer between 1 and the molecular weight of the poly(amino acid) divided by ~~about~~ 500; and salts thereof.

2. (original) A compound according to Claim 1 wherein  $R^1$  is H and  $R^2$  is H.

3. (original) A compound according to Claim 1 wherein  $R^1$  is H and  $R^2$  is lower alkyl.

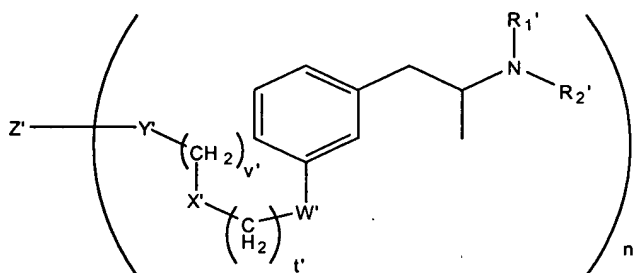
4. (original) A compound according to Claim 3 wherein lower alkyl is methyl.

5. (original) A compound according to Claim 1 wherein Z is a poly(amino acid).

6. (currently amended) A compound according to Claim 5 wherein said poly(amino acid) is an enzyme or ~~an immunogenic~~ a protein immunogenic carrier.

Claim 7 (canceled).

8. (currently amended) A compound of the formula:



wherein:

R<sup>1'</sup> is H, lower alkyl, a protecting group,

R<sup>2'</sup> is H, lower alkyl, a protecting group,

W' is O, S or NR<sup>3</sup> wherein R<sup>3</sup> is H or lower alkyl,

X' is C(O) or SO<sub>2</sub>,

Y' is bond, S or -NR<sup>3</sup> wherein R<sup>3</sup> is H or lower alkyl,

Z' is H, a protecting group, a poly(amino acid), a non-poly(amino acid) label moiety, a non-poly(amino acid) immunogenic carrier, or a functional group,

t' is an integer from 1 to 6 and v' is an integer from 0 to 6,

n' is 1 when Z' is other than a poly(amino acid) or, when Z' is a poly(amino acid), n' is an integer between 1 and the molecular weight of the poly(amino acid) divided by ~~about~~ 500;  
and salts thereof,

wherein the compound is a stereoisomeric mixture that comprises at least 51% of one stereoisomeric form over the other.

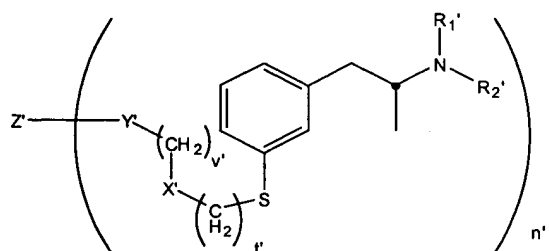
9. (original) A compound according to Claim 8 wherein R<sup>1'</sup> is H and R<sup>2'</sup> is H.

10. (original) A compound according to Claim 8 wherein R<sup>1'</sup> is H and R<sup>2'</sup> is methyl.

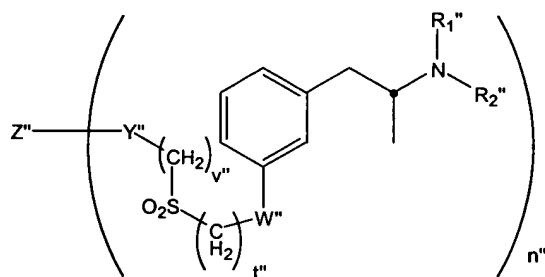
11. (original) A compound according to Claim 8 wherein Z' is a poly(amino acid).

12. (currently amended) A compound according to Claim 8, wherein said stereoisomeric mixture comprises at least 90% of one stereoisomeric form over the other ~~which is stereoisomer~~.

13. (original) A compound according to Claim 12 wherein said stereoisomer has the formula:



14. (currently amended) A compound of the formula:



wherein:

$R^{1''}$  is H, lower alkyl, a protecting group,

$R^{2''}$  is H, lower alkyl, a protecting group,

$W''$  is O, S, or  $NR^{3''}$  wherein  $R^{3''}$  is H or lower alkyl,

$Y''$  is bond, S or  $-NR^{3''}$  wherein  $R^{3''}$  is H or lower alkyl,

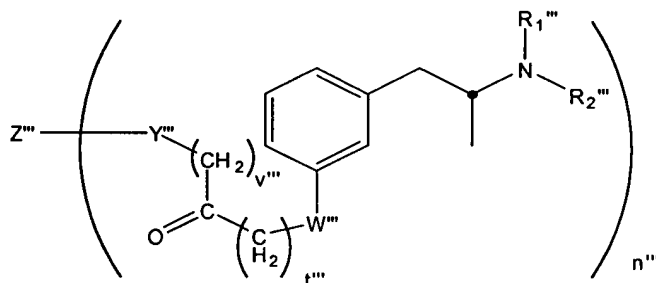
$Z''$  is H, a protecting group, a poly(amino acid), a non-poly(amino acid) label moiety, a non-poly(amino acid) immunogenic carrier, or a functional group,

$t''$  is an integer from 1 to 6 and  $v''$  is an integer from 2 to 6,

$n''$  is 1 when  $Z''$  is other than a poly(amino acid) or, when  $Z''$  is a poly(amino acid),  $n''$  is an integer between 1 and the molecular weight of the poly(amino acid) divided by ~~about~~ 500; and salts thereof.

15. (original) A compound according to Claim 14 wherein  $R^{1''}$  is H and  $R^{2''}$  is H.

16. (original) A compound according to Claim 14 wherein  $R^{1''}$  is H and  $R^{2''}$  is methyl.
17. (original) A compound according to Claim 14 wherein  $Z''$  is an enzyme.
18. (original) A compound according to Claim 17 wherein said enzyme is glucose-6-phosphate dehydrogenase.
19. (currently amended) A compound according to Claim 14 wherein  $Z''$  is ~~an~~ immunogenic a protein immunogenic carrier or a non-poly(amino acid) immunogenic carrier.
20. (original) An antibody raised against a compound according to Claim 19.
21. (original) A reagent system comprising a compound according to Claim 17, an antibody for amphetamine and/or an antibody for methamphetamine.
22. (original) A reagent system comprising an antibody according to Claim 20 and an enzyme conjugate of an amphetamine and/or an enzyme conjugate of methamphetamine.
23. (currently amended) A compound of the formula:



wherein:

- $R^{1''}$  is H, lower alkyl, a protecting group,
- $R^{2''}$  is H, lower alkyl, a protecting group,
- $W''$  is O, S, or  $NR^{3''}$  wherein  $R^{3''}$  is H or lower alkyl,
- $Y'''$  is a bond, S or  $-NR^{3''}$  wherein  $R^{3''}$  is H or lower alkyl,
- $Z'''$  is H, a protecting group, a poly(amino acid), a non-poly(amino acid) label moiety, a

non-poly(amino acid) immunogenic carrier, or a functional group,

$t'''$  is an integer from 1 to 6 and  $v'''$  is an integer from 0 to 6,

$n'''$  is 1 when  $Z'''$  is other than a poly(amino acid) or, when  $Z'''$  is a poly(amino acid),  $n'''$  is an integer between 1 and the molecular weight of the poly(amino acid) divided by ~~about~~ 500; and salts thereof.

24. (original) A compound according to Claim 23 wherein  $R^{1'''}$  is H and  $R^{2'''}$  is H.

25. (original) A compound according to Claim 23 wherein  $R^{1'''}$  is H and  $R^{2'''}$  is methyl.

26. (original) A compound according to Claim 23 wherein  $Z'''$  is an enzyme.

27. (original) A compound according to Claim 26 wherein said enzyme is glucose-6-phosphate dehydrogenase.

28. (original) A compound according to Claim 23 wherein  $Z'''$  is an antigen or a non-poly(amino acid) immunogenic carrier.

29. (original) An antibody raised against a compound according to Claim 28.

30. (original) A reagent system comprising a compound according to Claim 26, an antibody for amphetamine and/or an antibody for methamphetamine.

31. (original) A reagent system comprising an antibody according to Claim 29 and an enzyme conjugate of an amphetamine and/or an enzyme conjugate of methamphetamine.

32. (original) A method for determining amphetamine and/or methamphetamine in a sample suspected of containing amphetamine and/or methamphetamine, said method comprising:

- (a) providing in combination in a medium:
  - (i) said sample and
  - (ii) a reagent system according to Claim 21; and

(b) examining said medium for the presence of a complex comprising said amphetamine and said antibody for amphetamine and/or a complex of said methamphetamine and said antibody for methamphetamine, the presence thereof indicating the presence of said amphetamine and/or methamphetamine in said sample.

33. (original) A method according to Claim 32 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said amphetamine and/or methamphetamine in said sample.

34. (original) A method according to Claim 33 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

35. (original) A method according to Claim 33 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

36. (original) A method for determining amphetamine and/or methamphetamine in a sample suspected of containing amphetamine and/or methamphetamine, said method comprising:

(a) providing in combination in a medium:

(i) said sample and

(ii) a reagent system according to Claim 22; and

(b) examining said medium for the presence of a complex comprising said amphetamine and said antibody for amphetamine and/or a complex of said methamphetamine and said antibody for methamphetamine, the presence thereof indicating the presence of said amphetamine and/or methamphetamine in said sample.

37. (original) A method according to Claim 36 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said amphetamine and/or methamphetamine in said sample.

38. (original) A method according to Claim 37 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

39. (original) A method according to Claim 37 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

40. (original) A method for determining amphetamine and/or methamphetamine in a sample suspected of containing amphetamine and/or methamphetamine, said method comprising:

- (a) providing in combination in a medium:
  - (i) said sample and
  - (ii) a reagent system according to Claim 30; and
- (b) examining said medium for the presence of a complex comprising said amphetamine and said antibody for amphetamine and/or a complex of said methamphetamine and said antibody for methamphetamine, the presence thereof indicating the presence of said amphetamine and/or methamphetamine in said sample.

41. (original) A method according to Claim 40 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said amphetamine and/or methamphetamine in said sample.

42. (original) A method according to Claim 41 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

43. (original) A method according to Claim 41 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

44. (original) A method for determining amphetamine and/or methamphetamine in a sample suspected of containing amphetamine and/or methamphetamine, said method comprising:

- (a) providing in combination in a medium:

- (i) said sample and
- (ii) a reagent system according to Claim 31; and
- (b) examining said medium for the presence of a complex comprising said amphetamine and said antibody for amphetamine and/or a complex of said methamphetamine and said antibody for methamphetamine, the presence thereof indicating the presence of said amphetamine and/or methamphetamine in said sample.

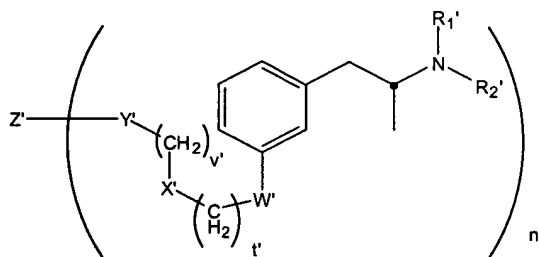
45. (original) A method according to Claim 44 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said amphetamine and/or methamphetamine in said sample.

46. (original) A method according to Claim 45 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

47. (original) A method according to Claim 45 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

48. (currently amended) A method for determining amphetamine and/or methamphetamine in a sample suspected of containing amphetamine and/or methamphetamine, said method comprising:

- (a) providing in combination in a medium:
  - (i) said sample,
  - (ii) an antibody for amphetamine,
  - (iii) an antibody for methamphetamine,
  - (iv) a compound of the formula:





wherein:

R<sup>1</sup>' is H, lower alkyl, a protecting group,

R<sup>2</sup>' is H, lower alkyl, a protecting group,

W' is O, S, or NR<sup>3</sup>', wherein R<sup>3</sup>' is H or lower alkyl,

X' is C(O) or SO<sub>2</sub>,

Y' is bond, S or -NR<sup>3</sup>', wherein R<sup>3</sup>' is H or lower alkyl,

Z' is an enzyme,

t' is an integer from 1 to 6 and v' is an integer from 0 to 6,

n' is an integer between 1 and the molecular weight of said enzyme divided by ~~about~~ 500;

and

(b) examining said medium for the presence of a complex comprising said amphetamine and said antibody for amphetamine and/or a complex of said methamphetamine and said antibody for methamphetamine, the presence thereof indicating the presence of said amphetamine and/or methamphetamine in said sample.

49. (original) A method according to Claim 48 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said amphetamine and/or methamphetamine in said sample.

50. (original) A method according to Claim 49 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

51. (original) A method according to Claim 49 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

52. (original) A method according to Claim 48 wherein said enzyme is glucose-6-phosphate dehydrogenase.

53. (currently amended) A method for determining amphetamine and/or methamphetamine in a sample suspected of containing amphetamine and/or methamphetamine, said method

comprising:

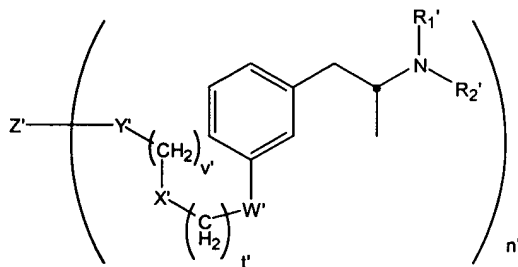
(a) providing in combination in a medium:

(i) said sample,

(ii) a conjugate of an enzyme and an amphetamine analog and/or

a conjugate of an enzyme and a methamphetamine analog,

(iii) an antibody for amphetamine, said antibody being raised against a compound of the formula:



wherein:

R<sup>1'</sup> is H and R<sup>2'</sup> is H,

W' is O, S, or NR<sup>3'</sup>, wherein R<sup>3'</sup> is H or lower alkyl,

X' is C(O) or SO<sub>2</sub>,

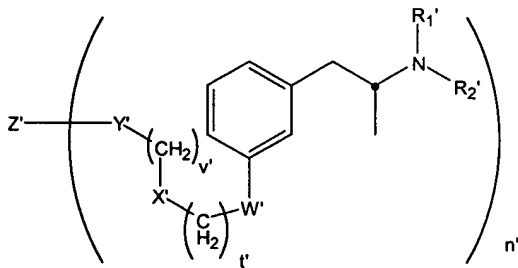
Y' is bond, S or -NR<sup>3'</sup>, wherein R<sup>3'</sup> is H or lower alkyl,

Z' is ~~an immunogenic~~ a protein immunogenic carrier or a non-poly(amino acid) immunogenic carrier,

t' is an integer from 1 to 6 and v' is an integer from 0 to 6,

n' is an integer between 1 and the molecular weight of said antigen or said immunogenic carrier divided by ~~about~~ 500; and/or

(iv) an antibody for methamphetamine, said antibody being raised against a compound of the formula:



wherein:

R<sup>1'</sup> is H and R<sup>2'</sup> is methyl,

W' is O, S, or NR<sup>3'</sup> wherein R<sup>3'</sup> is H or lower alkyl,

X' is C(O) or SO<sub>2</sub>,

Y' is bond, S or -NR<sup>3'</sup> wherein R<sup>3'</sup> is H or lower alkyl,

Z' is ~~an immunogenic~~ a protein immunogenic carrier or a non-poly(amino acid) immunogenic carrier,

t' is an integer from 1 to 6 and v' is an integer from 0 to 6,

n' is an integer between 1 and the molecular weight of said antigen or said immunogenic carrier divided by ~~about~~ 500; and

(b) examining said medium for the presence of a complex comprising said amphetamine and said antibody for amphetamine and/or a complex of said methamphetamine and said antibody for methamphetamine, the presence thereof indicating the presence of said amphetamine and/or methamphetamine in said sample.

54. (original) A method according to Claim 53 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said amphetamine and/or methamphetamine in said sample.

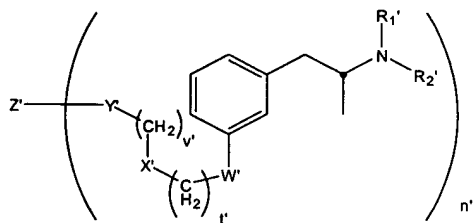
55. (original) A method according to Claim 54 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

56. (original) A method according to Claim 54 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

57. (original) A method according to Claim 53 wherein said enzyme is glucose-6-phosphate dehydrogenase.

58. (currently amended) A kit comprising in packaged combination:

- (i) an antibody for amphetamine,
- (ii) an antibody for methamphetamine,
- (iii) a compound of the formula:



wherein:

$R^{1'}$  is H, lower alkyl, a protecting group,

$R^{2'}$  is H, lower alkyl, a protecting group,

$W'$  is O, S, or  $NR^{3'}$  wherein  $R^{3'}$  is H or lower alkyl,

$X'$  is  $C(O)$  or  $SO_2$ ,

$Y'$  is bond, S or  $-NR^{3'}$  wherein  $R^{3'}$  is H or lower alkyl,

$Z'$  is an enzyme,

$t'$  is an integer from 1 to 6 and  $v'$  is an integer from 0 to 6,

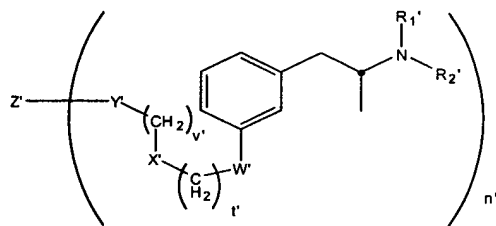
$n'$  is an integer between 1 and the molecular weight of said enzyme divided by ~~about~~ 500.

59. (original) A kit according to Claim 58 wherein said enzyme is glucose-6-phosphate dehydrogenase.

60. (currently amended) A kit comprising in packaged combination:

(i) a conjugate of an enzyme and an amphetamine analog and/or a conjugate of an enzyme and a methamphetamine analog,

(ii) an antibody for amphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$  is H and  $R^{2'}$  is H,

$W'$  is O, S, or  $NR^{3'}$  wherein  $R^{3'}$  is H or lower alkyl,

$X'$  is  $C(O)$  or  $SO_2$ ,

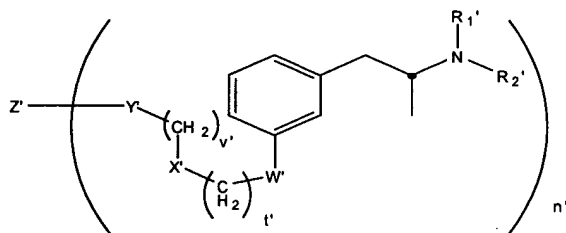
Y' is bond, S or -NR<sup>3'</sup>, wherein R<sup>3'</sup> is H or lower alkyl,

Z' is ~~an immunogenic~~ a protein immunogenic carrier or a non-poly(amino acid) immunogenic carrier,

t' is an integer from 1 to 6 and v' is an integer from 0 to 6,

n' is an integer between 1 and the molecular weight of said antigen or said immunogenic carrier divided by ~~about~~ 500; and/or

(iii) an antibody for methamphetamine, said antibody being raised against a compound of the formula:



wherein:

R<sup>1'</sup> is H and R<sup>2'</sup> is methyl,

W'' is O, S, or NR<sup>3'</sup>, wherein R<sup>3'</sup> is H or lower alkyl,

X' is C(O) or SO<sub>2</sub>,

Y' is bond, S or -NR<sup>3'</sup>, wherein R<sup>3'</sup> is H or lower alkyl,

Z' is ~~an immunogenic~~ a protein immunogenic carrier or a non-poly(amino acid) immunogenic carrier,

t' is an integer from 1 to 6 and v' is an integer from 0 to 6,

n' is an integer between 1 and the molecular weight of said antigen or said immunogenic carrier divided by ~~about~~ 500.